CLASSIFICATION OF FAMILY CHRYSOMELIDAE (COL.) PART II. SUBFAMILIES CASSIDINAE, EUMOLPINAE, GALERUCINAE AND HISPINAE

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ABSTRACT

Twenty two species attributed to sixteen genera in four subfamilies: Cassidinae (five species in four genera), Eumolpinae (seven species in five genera), Galerucinae (six species in five genera) and Hispinae (three species in two genera) are investigated taxonomically during the present work, depending on identification keys to separate the different taxa and illustrated diagnostic characters of the species concerned, in addition diagnosis of higher categories.

INTRODUCTION

Once more with the systematic of the family Chrysomelidae due to its economic importance. Recently, a great part of this job had been covered. The present work is planned to deal with the remaining part, i.e. subfamilies Cassidinae, Eumolpinae, Galerucinae and Hispinae.

Contribution to the classification and economic importance of cassidins were made by Speath (1932 & 1933), Gressitt and Kimoto(1963), Chen (1964, 1985 &1986), Kimoto (1966), An *et al.* (1985), Borowiec (1985a, b & c), Bordy & Doguet (1987), Schmitt (1989), (Booth *et al.*, 1990) and Borowiec *et al.* (1997). Concerning subfamily Eumolpinae (Bechyne, 1947, 1949, 1951, 1953, 1954, 1957, 1958 & 1960; Kimoto, 1964a; Selman, 1965; Gressitt, 1967 & 1969; Kimoto & Gressitt, 1982). As for subfamily Galerucinae (Laboissiere, 1920, 1922, 1927, 1931, 1932a & b, 1934a & b & 1936; Chujo, 1962; Kimoto, 1964b, 1965 & 1989; Shut, 1983). As to subfamily Hispinae (Uhmann, 1953, 1954, 1957 & 1960; Gressitt, 1957, 1960 & 1963; Schmitt, 1989).

MATERIAL AND METHODS

In addition to the preserved material in the Egyptian Reference Insect collections, light traps fixed in different parts of the country and field treps provided important sources for the specimens of the chrysomelid species included in this work. From every species, dry mounting of adult beetles were made for keeping and to help in recording the taxonomic features. Some specimens were used to make microscopic preparations. Preliminary species included in this work were confirmed in British Museum, London. The measurements of the body are: (T.L.: Total length, E.L.: Elytral length, E.W.: Elytral width, P.L.: Pronotal length and P.W.: Pronotal width).

RESULTS AND DISCUSSION

CLASSIFICATION

Key to the chrysomelid subfamilies

1- Head hypognathous, mandibles directed down or forward and down and always seen from above. Abdomen usually with seven tergites, the 7th. one forming the pygidium. ---------- 2

- Head opisthognathous, mandibles directed down and backword, and not seen from above. Abdomen with eight tergites, the 8th. one forming the pygidium. ------- 3

2(1) - Antennal insertions widely separated, located at both sides of frons and situated above base of mandibles. ---------- **Eumolpinae**

- Antennal insertions located on frons between eyes, rather close to each other. ----- ----------**Galerucinae**

3(1) - Prothorax and elytra with a broad marginal expansion. Head covered with pronotum. ----------**Cassidinae**

- Prothorax and elytra without marginal expansion, usually with spines. Head not covered with pronotum. ---------- **Hispinae**

Subfamily Cassidinae

(Tortoise beetles)

Cassidites Gyllenhal, Col. Sive Eleuterata, 1, part 3, 1813, p. 434.

Cassidiadae Stephens, Ill. Brit. Ent., IV, 1831, p. 364.

Cassidoidea Hope, Col. Man., III, 1839, p. 158.

Cassididae Lacordaie, Phytoph., I, 1845, p. 51.

Cassidinae Erichson, Archiv f. Naturgesch., XIII, 1847, I, p. 151.
Cassidides Redtenbacher, Fauna Austr., ed. 2, 1858, p. CXXXI.
Cassidides Crotch, Proc. Acad. Philad., 1873, p. 19 and 76.
Cassidina Fowler, Col. Brit. Isl., IV, 1890, p. 395.

Diagnosis

Body shield-shaped, dorsally convex and ventrally flat, rounded or ovate, usually with flattened explanate lateral margins to the pronotum and elytra. They often have a metallic colouration, which because it's chemical nature, so it fades after death. Some cassids are capable of changing colour rapidly from a brilliant golden to dull red-yellow when disturbed, which probably is a protective function. Head small, opisthognathous totally hidden by pronotum and not visible from above. Mouth parts similarly concealed by prothorax. Frons with furrow along median and frontal tubercles over antennal sockets. Clypeus large. Eyes elongated, situated close to lower part of frons. Labrum transverse, with fairly deep suture. Mandibles with innumerable denticles. Antennal segments, commencing from 7th, broodened. Pronotum roof-shaped, without anterior angles, with rounded binotched base, more rarely straight at base with lobe projecting opposite scutellum. Scutellum small and triangular. Elytra closely adjoin pronotum, rarely broader than base of latter. Basal region of elytra usually with minute denticles. Disk uniformly convex or tubercular and raised posterior to scutellum. Elytral rows of punctation regularly or confused. Epipleura distinct. Prosternum with broad process between closed coxal cavities. Legs short, with thin femora concealed by elytra. Tibiae straight, slightly broadened terminally. Tarsi broad, densely pubescent ventrally. Tarsal segment bearing claw rarely projects out of lobes of 3rd segment, more often hidden in it. Claws simple or serrate. Abdomen with all five sternites free.

In Egypt, this subfamily is represented by 5 species in 4 genera (Alfieri, 1976). Only four species were available, and the last one species *Ischyronota desertorum* (Gebler) in this group was not available, but introduced in the work after the diagnostic characters adopted by Lopatin (1984).

Key to the genera of subfamily Cassidinae

1- Body length more than 5mm. Elytra regularly punctate. ---------- 2

- Body length less than 5mm. Elytra irregularly punctate. ---------- 3

2- Second antennal segment shorter than third. Ventral surface of pronotum with deep antennal grooves. ---------- ***Hypocassida*** **Weise**

- Second antennal segment longer than third. Ventral surface of pronotum without grooves. ---------- ***Cassida*** **Linnaeus**

3- Explanate margin of elytron very broad, about as wide as elytron. Each elytron with distinct marginal interval in anterior third. ---------- ***Oxylepis*** **Desbrochers**

- Explanate margin of elytron narrow, not wider than 1/3 width of elytron. Each elytron without marginal interval. ---------- ***Ischyronota*** **Weise**

Genus *Cassida* Linnaeus, 1758

Cassida Linnaeus, Syst. Nat., ed. 10, 1758, I, p. 361.

Type species: *Cassida nebulosa* Linnaeus, 1758 (after Kimoto, 1966).

Diagnosis

Body rounded or ovate, moderately swollen. The second antennal segment longer than third, apical five segments broadened and densely pubescent. Pronotum transverse, oval, with straighter almost posterior margin; anterior angles totally absent, posterior angles often barely perceptible and hidden by elytral base; sometimes lateral margin closer to base forms projection regarded by many entomologists as angles; basal margin often with denticles. Elytra usually not broader than pronotum, with coalescent punctation or latter arranged in rows (nine or ten) and very short, slightly abraded hairs. Prosternum with two projections along sides of base in anterior parts of mesosternum, facilitating joining of these parts. Forecoxae wide-set, process between them terminally with broadening, resting in pit on mesothorax.

Key to the species of genus *Cassida* Linnaeus

1- Elytra regularly punctate, arranged in striae, with irregular superficial punctation along lateral margin; without costae; without humeral callus ---------- ***Cassida vittata*** **Villers**

- Elytra irregularly punctate, deep densely in middle and obviously large, deep and sparsely along lateral margin; with three elongated and elevated costae along its length; humeral callus prominent ---------- ***C. rabinovitchi*** **Pic**

Cassida vittata **Villers, 1789**

(Pl. I, figs. 1 - 7)

Synonyms and type locality (after Kimoto, 1966).

Cassida vittata Villers, Linn. Ent., I, 1789, p. 93.

Cassida oblonga Illiger, Insecten. Hall, 1798, p. 785.

Diagnosis

Measurements: T.L.: 5.4 – 5.8 mm.

P.L.: 1.8 – 2.0 mm. P.W.: 3.2 – 3.3 mm.

E.L.: 3.6 – 3.8 mm. E.W.: 3.4 – 3.6 mm.

Body testaceous in general; head, thoracic sternites, coxae, an elongated broad band extending medially along all five abdominal sternites in male, along 1st – 4th in female and tergites, all black. Head finely punctate; mandibles asymmetrical. Labrum curved along lateral sides, slightly emarginated anteriorly; clypeus with a straight margin, slightly elevated medially. Frontal ridge tender, joint at antennal base, forming among themselves a long triangle. Pronotum wide, rounded anteriorly, with characteristic attenuated margin around it anteriorly and laterally; with irregular deep punctation and fine superficially on the disc; posterior angles slightly rounded. Elytra regularly deeply punctate and with irregular superficial punctation along lateral margin; intervales with fine punctures on basal third. Aedeagus (Pl. I fig. 6) and spermatheca (Pl. I fig. 7).

Material examined: 110 specimens

Mariout (Alex.) during July (1917); Helwan (Cairo), Jan. and March (1935); Gabal Asfer (Qalioubiya), April (1937) ---------- **{60 specimens Coll. Agr.}.**

Gabal Asfer (Qalioubiya), April(1937); Alex., April - July (1939) ------ **{17, Coll. Alfieri}.**

Alex., April ---------- **{1, Coll. Society}.**

Abu Rawash (Giza), March (1955) ---------- **{1, Coll. Cairo}.**

Gabal Asfer (Qalioubiya), March (1955) ---------- **{6, Coll. Ain Shams}.**

Kafr el Sheikh, May (1999), on *Zea mays* L.; Wadi Zeib (Gabal Elba), Jan. (2000), on *Convolvulus siculus* L. and *Rumex pictus* Forssk; Bilbeis (Sharquia), June (2001), on *Medicago sativa* L.; Abu el Matamer (Beheira), Jan. (2002), on *Trifolium alexandrinum* L. ---------- **{25, Coll.A.El-Torkey}.**

World distribution: Palaearctic Region.

Cassida rabinovitchi Pic, 1939

(Pl. I, figs. 8 - 9)

Cassida rabinovitchi Pic, Bull. Soc. Fouad 1st Ent., 23, 1939, p. 149.

Type locality: Egypt (Alfieri, 1976).

Diagnosis

Measurements: T.L.: 5.0 – 5.3 mm.

P.L.: 1.5 – 1.7 mm. P.W.: 3.0 – 3.2 mm.

E.L.: 3.5 – 3.6 mm. E.W.: 3.3 – 3.5 mm.

Body testaceous; head, thoracic sternites, coxae and abdomen green. Pronotum straight anteriorly, with arched lateral margins; anterior angles rounded and posterior angles curved; with irregular punctation, fine at middle and big sparsely along both margins; basal margin deeply sinuated. Elytra slightly broader basally and extending anteriorly; with irregular punctation, deep densely in middle and deep sparsely along both margins; with three elongated and elevated costae along its length; humeral callus elevated and prominent.

Material examined: one specimen

Cairo during March (1935) ---------- **{Coll. Alfieri}.**

Genus *Hypocassida* Weise, 1893

Hypocassida Weise, Ins. Deutschl., VI, 1893, p. 1074.

Type species: *Cassida subferruginea* Schrank, 1776 (Burakowski *et al.*, 1991).

Diagnosis

Body broadly oval, swollen, slightly lustrous or matte, dorsally glabrous. Frons short and broad, with sparse punctation. Frontal furrows weak, close to margins of eyes. Antennae situated in deep grooves traversing boundary between prothorax and epipleura of pronotum; 2nd antennal segment shorter than 3rd , but perceptibly thicker than it. Labrum swollen with narrow and deep suture on anterior margin. Pronotum transversely elliptical, with rounded angles, moderately swollen. Elytra with obliquely dipping flanks and fimbria not turned upward; humeral callus well developed. Elytral disk with coarse, dense, coalescent punctation, at places orderly, with three or four lustrous costae on each elytron. Basal margin of elytra with short denticles. Prosternal intercoxal cavities closed; coxae of all legs wide-set; tarsal soles with glabrous oblong line; claws without denticles.

Hypocassida subferruginea (Schrank, 1776)

(Pl. I, figs. 10 - 15)

Synonyms and type locality (after Burakowski *et al.*, 1991).

Cassida subferruginea Schrank, Beytr., 1776, p. 62.

Cassida ferruginea Fabricius, 1781.

Cassida subferruginea Lomnicki, 1884.

Cassida subferruginea var. *sobrina* Weise, 1893.

Cassida subferruginea ab. *sobrina* Lullwitz, 1916.

Type locality: Palearctic region.

Diagnosis

Measurements: T.L.: 5.8 – 6.2 mm.

P.L.: 2.0 – 2.3 mm. P.W.: 3.3 – 3.5 mm.

E.L.: 4.0 – 4.4 mm. E.W.: 3.8 – 4.5 mm.

Body brown; head, thoracic sternites, coxae, all tergites of female, 1st – 2nd tergites of male and obvious broad band extending along abdominal sternites all dark brown to black. Head slightly punctate; mandibles asymmetrical. Labrum slightly emarginated medially; clypeus with curved margin. Pronotum with irregular indistinct punctation; posterior angles rounded. Elytra with sinuated basal margin; with irregular punctation, deep densely in middle and sparsely along both margins; with four longitudinal lines and other cross lines in between anteriorly. Legs with 4th tarsal segment deeply impedded within 3rd; 2nd tarsal segment bilobed. Aedeagus (Pl. I fig. 14) and spermatheca (Pl. I fig. 15).

Material examined: 52 specimens

Mansura (Dakhaliya), during June (1917); Dekernis (Beheira), July (1917); Kafr el Sheikh, Aug. (1924), on *Gossypium barbadense* L.; Maadi and Helwan (Cairo), June - Nov. (1932), on Halfa; Mehalla Kubra and Kafr el Zayat (Gharbiya), Jan. and Sep. (1932), on Citrus and *Gossypium barbadense* L.; Zagazig (Sharqiya), May (1932), on *Trifolium alexandrinum* L.; Wadi Rashrash (Sinai), June (1932); Gabal Asfer and Ezbet el nakhl (Qalioubiya), March and Sep. (1933) ---- **{22 specimens Coll. Agr.}**.

Cairo, Aug. (1935) ---------- **{9, Coll. Alfieri}**.

Cairo and Giza, May - July (1912) ---------- **{6, Coll. Society}**.

Fayioum , May (1958) ---------- **{1, Coll. Cairo}**.

Kafr el Sheikh, June (1999), on *Zea mays* L.; Wadi el Lega and Gabal Serbal (Sinai), May and July (2000), on *Hyoscyamus niger* L.; Wadi Zeib (Gabal Elba), Jan. (2000), on *Abutilon pannosum* (Forst.) and *Cistanche phelypaea* (L.); Kom

Ombo (Aswan), July (2001), on *Tamarix aphylla* (L.); Kom oshim (Fayioum), Dec. (2002), on *Trifolium alexandrinum* L. ---------- **{14, Coll.A.El-Torkey}.**

World distribution: Palaearctic Region.

Genus *Ischyronota* Weise, 1893

Ischyronota Weise, Ins. Deutschl., VI, 1893, p. 1069.

Type species; *Cassida desertorum* Gebler, 1833 (after Lopatin, 1984).

Diagnosis

Body highly swollen dorsally, oblong or squat-oval, with steeply dipping elytral sides; dorsally glabrous. Head fairly broad, frons broadened downward, with indistinct furrows, punctate or smooth, flat. Labrum with straight or broadly sutured apical region .Antennae short; 3rd segment shorter than 2nd , 7th to 11th clavate. Pronotum triangular, anteriorly narrow rather sharply. Disk highly swollen margin of anterior region thin and transparent. Scutellum large and triangular. Elytra oblong-quadrangular, with broadly rounded apex. Humeral callus well developed, erect. Disk with interrupted rows of punctation, only inner rows along suture sometimes entire. Prosternal intercoxal cavities closed, all coxae close-set. Tarsi fairly narrow, soles with glabrous band medially. 3rd tarsal segment with very long lobes from which segment bearing claw projects somewhat. Claws often asymmetrical, without denticles.

Ischyronota desertorum (Gebler, 1833)
(Pl. I, figs. 18 - 20)

Synonyms and type locality (after Lopatin, 1984).

Cassida desertorum Gebler, Bull. Soc. Nat. Mosc., 6, p. 305.

Cassida jakovlevi Reitter.

Cassida araxicola Reitter.

Cassida salsolae Desbrochers, Frelon, I, 1891, p. 43.

Cassida basimargo Reitter.

Type locality: South Russia.

Diagnosis (after Lopatin, 1984).

Measurements: T.L.: 3.6 – 5.0 mm.

Body elliptical or ovate . Green, often with bright yellow pronotum, live specimens often with pink oblong bands from humeral callus to elytral apex, turning yellowish- green after death. Frons with coarse, fairly dense punctation. Pronotum with well developed, fairly dense punctation on disc and coarse punctation fusing on

lateral margins. Elytra along basal margin without denticles; covered with dense and fairly deep, sometimes indistinct punctation arranged in rows close to suture. Claws of forelegs asymmetrical; outer claw significant thicker and longer than inner, short and pointed at apex. Aedeagus (Pl. I fig. 20).

World distribution: South Europe, USSR, Eastern Caucasus, Central Asia and China.

Remark: This species was recorded during July, from Helwan (Cairo, Egypt) (Alfieri, 1976).

Genus *Oxylepis* Desbrochers, 1884

Oxylepis Desbrochers, Bull. Acad. Hippone, 1884, p. 100.

Type species: *Cassida deflexicollis* Bohman, 1862 (after Junk, 1914a).

Diagnosis

Body strongly convex, occasionally subcylindrical; length less than five mm.; dorsally glabrous. Head small, punctated or smooth; labrum straight; frons flat; antennae short, 3rd segment shorter than 2nd, 7th – 11th antennal segments club-shaped. Pronotum broadly transverse; sparsely punctate; anterior margin with or without notch. Scutellum small, triangular. Elytra rounded apically; with distinct marginal interval; explanate margin broad; humeral callus well developed. Prosternal intercoxal cavities closed. The third tarsal segment longer than fourth; claws symmetrical, without denticles.

Oxylepis deflexicollis (Boheman, 1862)
(Pl. I, figs. 16 - 17)

Synonyms and type locality (after Junk, 1914a).

Cassida deflexicollis Boheman, Mon. Cassida, IV, 1862, p. 333.

Cassida deflexicollis var. *involuta* Fairmaire, Ann. Mus. Civ. Genova, XV, 1880, p. 419.

Cassida deflexicollis var. *cupucina* Desbrochers, Bull. Acad. Hippone, 1884, p. 100.

Cassida palaestina Desbrochers, Bull. Acad. Hippone, 1884, p. 101.

Cassida excelsa Desbrochers, Mon. Cassida, 1891, p. 37.

Cassida vagepunctata Weise, Wien. Ent. Zeit., X, 1891, p. 203.

Diagnosis

Measurements: T.L.: 3.4 – 3.6 mm.

P.L.: 1.1 – 1.2 mm. P.W.: 1.7 – 1.9 mm.

E.L.: 2.3 – 2.4 mm. E.W.: 2.0 – 2.2 mm.

Body testaceous. Head slightly punctate. Pronotum wide, with indistinct sparsely punctation, anterior margin notched medially, anterior angles straight and posterior angles rounded, lateral margins somewhat straight. Elytra narrow, irregularly punctate; the explanate margin of elytron very broad about as wide as elytron; elytron with distinct margin interval in anterior third; each elytron with two longitudinal costae. Legs with 4th tarsal segment slightly shorter than 3rd and deeply impedded within it, 2nd tarsal segment slightly bilobed. Spermatheca (Pl. I fig. 17).

Material examined: 118 specimens

Borg el Arab and hammam (Alex.) during March, June and Aug. (1936) ---------- **{4 specimens Coll. Agr.}.**

Sidi Bisher (Alex.), July and Aug. (1922) ---------- **{8, Coll. Alfieri}.**

Helwan (Cairo), March (1912); Sherbeen (Gharbiya), April (1913); Alexandria, Jan. - Dec. (1915) ---------- **{106, Coll. Society}.**

World distribution: Along Mediterranean Region.

Subfamily Eumolpinae
(Oval leaf beetles)

Eumolpites Hope, Bridgewater London, 1840, p. 162.

Emolpides Chapuis, Gen. Col., X, 1874, p. 220.

Eumolpidae Jacoby, Biol. Centr. Amer. Col., VI, I, 1881, p. 105.

Emolpini Weise, Naturg. Ins. Deutschl., VI, 1882, p. 276.

Eumolpinae Jacoby, Fauna Ind. Col., II, 1908, p. 283.

Diagnosis

Body oval to elongate, often metallic, dorsally glabrous, pubescent, or covered with scales. Head hypognathous, well inserted into the prothorax. Frons often with notches posterior to eyes and median longitudinal depression. Eyes usually oblong-oval, entire or with emarginated inner margin. Mandibles asymmetrical, thick, highly bent or arced, apically pointed, bare inside. Antennae thickened apically, 1st segment invariably highly thickened, 2nd shortest, 7th to 11th segments flattened and enlarged. Pronotum hemispherical, pyramidal, or cylindrical, invariably narrower than elytral bases. Sides of pronotum often with or without sharp margin and base often without border. Scutellum distinct, varies in shape. Elytra oblong or almost squarish, often hiding abdomen, with protruding humeral callus, more rarely without them, and then small and oval. Disk with punctation, wrinkles, or tubercles. Epipleura distinct, highly constricted posteriorly, rarely obliterated. Prosternum with broad or narrow process between coxae; coxal

depressions closed. Femora often thickened, with or without denticle on lower side. Tibiae with longitudinal grooves, without apical spurs, often with subapical notch. Claws simple ،with denticle or cloven . Abdominal sternites not constricted medially; sometimes 1st abdominal sternite longer than each of successive three: anal sternite longer and narrower than each of preceding three. Aedeagus distally short, bent, sclerotized, and proximally long, soft. Tegmen bifurcate.

In Egypt, this subfamily is represented by 8 species in 5 genera. Only six species were available. One species, *Macrocoma brunnipes* (Olivier), was not available, but introduced in the work after the diagnostic characters adopted by Lefevre (1876). The last species from this group *Chloropterus pallidus* Chobaut was not available and not introduced in the present work.

Key to the genera of subfamily Eumolpinae

1- Propleura of prothorax with anterior margin straight or concave. ---------- 2

- Propleura with anterior margin convex. ---------- 4

2- Prothorax margined on sides, sometimes only posteriorly with straight lateral margins. Upperside bare. ---------- ***Euryope*** **Dalman**

- Prothorax not margined on sides. Upperside pubescent. ---------- 3

3- Body robust. Prosternum between coxae wide, subquadrate; elytra at shoulders much broader than prothorax. Mid and hind tibiae not excavate before apex. ---- ---------- ***Macrocoma*** **Chapius**

- Body small and slender. Prosternum between coxae narrow, elongate; elytra at shoulders slightly broader than prothorax. Mid tibiae only excavated before apex. ---------- ***Malegia*** **Lefevre**

4- Upperside covered with scales. Prosternum between coxae wide and opening from anterior and closed from posterior margins. ---------- ***Pachnephorus*** **Chevrolat**

- Upperside bare. Prosternum between coxae wide and closed from anterior and posterior margins. ---------- ***Chloropterus*** **Morawitz**

Genus *Chloropterus* Morawitz, 1861

Cloropterus Morawitz, Horae Ross., I, 1861, p. 162.

Heterocnemis Morawitz, Bull. Mosc., XXXIII, 1860, I, p. 301.

Type species: *Heterocnemis versicolor* Morawitz, 1860 (after Warchalowski, 1993).

Diagnosis

Body elongated-oval, swollen, smooth. Head up to eyes drawn into pronotum; clypeus only slightly elevated above frontal plane. Eyes with small emargination. Antennae filiform, not longer than half body length. Pronotum transverse with rounded sides and entire thin lateral margin; pronotal angles with projecting denticle and aristate pores. Elytra broader than pronotum, with projecting humeral callus and regular rows of punctation; epipleura highly constricted basally and linear at apex. Prosternal intercoxal process between coxae linear; mesosternum between coxae narrow. Femora medially swollen, with minute denticle close to apex on lower side; mid- and hind tibiae with notch subapically and long cilia. Claws simple or with shallow cleavage; three-fourths of segment bearing claw projects from lobes of 3rd segment. First abdominal sternite equal to second.

***Chloropterus bimaculatus* (Raffray, 1873)**

(Pl. II, figs. 1 - 4)

Nodostoma bimaculatus Raffray, Rev. Mag. Zool., (3) I, 1873, p. 385.

Type locality: Algeria (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 5.2 – 5.6 mm.

P.L.: 1.2 – 1.4 mm. P.W.: 1.9 – 2.2 mm.

E.L.: 3.3 – 3.8 mm. E.W.: 2.3 – 3.0 mm.

Body testaceous, with shadow spots on vertex and pronotum; each elytron with one spot in some specimens. Head deeply and densely punctate; mandibles moderate with one tooth apically; labrum with straight anterior margin and a transverse depression anteriorly; clypeus straight anteriorly. Pronotum deeply, densely punctate and pubescent; anterior angles sharp and pointed, posterior angles obtuse; thoracic sternites sparsely punctate; scutellum subtriangular. Elytra with deep, dense regular rows of punctures; humeral callus projecting. Legs densely pubescent; mid- and hind tibiae excavate subapically. Abdomen sparsely punctate and densely pubescent . Spermatheca (Pl. I fig. 4).

Material examined: 6 specimens

Kom Oshim (Fayioum), during May (1954) -------- **{1 specimen Coll. Ain Shams}**. Sant Catherin (Sinai), July (2000), on *Francoeuria crispa* (Forssk.); Wadi Aidcib (Red Sea), Jan. (2000), on *Salsola volkensii* Asch & Schw. and *Salsola baryosma* (Schult.) ---------- **{5, Coll.A.El-Torkey}**.

World distribution: Algeria.

Genus *Euryope* Dalman, 1824

Euryope Dalman, Ephem. Ent., I, 1824, p. 17.
Arachnosphaerus Thoms, Ann. Soc. Ent. France, (3) IV, 1856, p. 329.
Ecranus Walker, List. Col. Coll. Lord., 1871, p. 19.
Type species: *Chrysomela rubrifrons* Fabricus, 1787 (after Junk, 1914b).

Diagnosis

Body glabrous, red with black spots and bands on elytra. Antenna with the 2nd segment elongate and longer than 3rd . Frons broad, without longitudinal furrow. Pronotum slightly transverse, with nearly straight lateral margins (sometimes only posteriorly); propleura of prosternum with anterior margin straight or concave; pronotum narrower than elytra. Scutellum trapozoidal. Elytra with irregular punctation; with highly projecting humeral callus. Tibiae without subapical notch; claws bifid. First abdominal sternite slightly longer than second.

Euryope rubra (Latreille, 1807)
(Pl. II, figs. 5 - 10)

Eumolpus rubra Latreille, Gen. Crust. Inst., 3, 1807, p. 56.
Eumolpus quadrimaculata Olivier, Ent., VI, 1808, p. 905, t.1, f.14.
Ecranus nigripes Walker, List Col. Coll. Lord., 1871, p. 19.
Eumolpus rubra (Latreille) – Bryant, Ann. & Mag. Nat. Hist., 10 (12), 1957, p. 354.
Type locality: Dongola (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 10 – 12 mm.

P.L.: 2.5 – 2.7 mm.	P.W.: 3.5 – 4.0 mm.
E.L.: 6.8 – 7.5 mm.	E.W.: 5.8 – 6.4 mm.

Body reddish brown; mandibles, antennae, legs, four spots on each elytron and scutellum black. Head finely, sparsely punctate; mandibles large. Labrum slightly emarginated and somewhat straight laterally; clypeus concave anteriorly and elevated laterally above antennal sockets. Pronotum with numerous fine punctures; anterior angles elevated and curved, posterior angles elevated and sharp; lateral margins broad and with fine anterior and posterior margin. Elytra finely, sparsely punctate; humeral callus strongly projecting; each elytron with four spots, 1st situated basally, 2nd subbasally and both near humeral callus; 3rd transverse band-like, located subbasally near the middle and the last one located apically. Legs densely pubescent; tibiae broadened apically; 4th tarsal segment longer than 3rd. Aedeagus (Pl. II fig. 10).

Material examined: 8 specimens

Wadi Aideib (Red Sea). during Jan. (1935) ---------- **{one specimen, Coll. Agr.}.**

Wadi Aideib (Red Sea), April (1994) ---------- **{1, Coll. Ain Shams}.**

Gabal Serbal (Sinai), May (2000), on *Francoeuria crispa* (Forssk.); Wadi Aideib (Red Sea), Jan. (2000), on *Salsola volkensii* Asch & Schw. and *Salsola baryosma* (Schult.) ---------- **{6, Coll.A.El-Torkey}.**

World distribution: South and West Africa, Saudi Arabia and South Yemen.

Genus *Macrocoma* Chapuis, 1874

Macrocoma Chapuis, Gen. Col., X, 1874, p. 292.

Euhrachys Baly, Journ. Linn. Soc. London, XIV, 1878a, p. 248.

Pseudocolaspis J.Thomson, Arch. Ent., II, 1858, p. 214.

Ischyromus Jacobson, Hor. Soc. Ent. Ross., 27, 1893, p. 241.

Type species: *Macrocoma eriophora* Chapuis, 1874 (after Warchalowski, 1993).

Diagnosis

Body moderately broad, bulging, metallic, lustrous; dorsally with short erect or moderately close-fitting hairs, more rarely bristles. Frons broad, not demarcated from clypeus, without longitudinal furrow. Eyes bulge, small, rounded-oval, without emargination. Antennae with thin 2nd to 6th and roundly thickened 7th to 11th segments. Pronotal width barely greater than length; sides rounded, without lateral margins. Elytra distinctly broader than pronotum, with highly projecting shoulders, slightly flattened on disk posterior to scutellum and with irregular punctation. Epipleura broad, narrow at level apically. Femora medially thickened, with sharp denticle on lower side; tibiae without subapical notch. Tarsal segment bearing claw shorter than preceding three segments. Claws with sharp, narrow denticle, almost cloven. First abdominal sternite equal to the following three sternites together.

Key to the species of genus *Macrocoma* Chapuis

1-Hind tibia with numerous bristles around apical part; right mandible with three teeth, one elongated apically and two subbasally; left mandible with two teeth, one elogated apically and one subbasally ------- ***Macrocoma leprieuri* (Lefevre)**

- Hind tibia with fine bristles in the outer part; right mandible with two teeth, one elongated apically and one medially; left mandible with only an elongated tooth apically ---------- ***M. seriesericans* (Fairmaire)**

***Macrocoma leprieuri* (Lefevre, 1876)**

(Pl. II, figs. 11 - 17)

Pseudocolaspis leprieuri Lefevre, Abeille, 14, 1876, p. 6.

Pseudocolaspis millingeni Pic, Misc. Ent., 6, 1898, p. 154.

Macrocoma leprieuri (Lefevre)–Shalaby, Bull. Soc. Ent. Egypt, 45, 1961, p. 226.

Type locality: Algeria, Bou Saada (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 4.0 – 5.5 mm.

P.L.: 1.0 – 1.6 mm. P.W.: 0.9 – 1.4 mm.

E.L.: 2.6 – 3.5 mm. E.W.: 2.0 – 3.0 mm.

Body black in general; mandibles, labrum, antennal segments and legs dark brown. Head deeply, densely punctate and densely pubescent; mandibles large. Labrum slightly emarginated anteriorly, with a transverse depression basally and with straight lateral margins; clypeus deeply curved, with elevated lateral margins above antennae and situated in both sides. Pronotum deeply, densely punctate and covered with white hairs. Thoracic sternites and scutellum densely punctate and densely pubescent. Elytra with numerous, deep irregular punctation and with ten regular rows of white erect scales; humeral callus protruding. Legs densely pubescent and punctate; each femur with a spine dorsally at middle; hind tibiae with numerous bristles apically in addition two spines medially. Abdomen densely punctate and pubescent; first abdominal sternite obviously wide between the hind coxae. Aedeagus (Pl. II fig. 16) and spermatheca (Pl. II fig. 17).

Material examined: 94 specimens

Suez, during June (1931); Gabal Elba (Red Sea), Jan. (1933); Sinai, May (1935) ---- **{58 specimens, Coll. Agr.}.**

Hadrah, King Mariout (Alex.), May and June (1912); Suez, June (1921); Wadi el Gedeirat (Sinai), May (1935) ---- **{11, Coll. Alfieri}.**

Hadrah, King Mariout (Alex.), May and June ---- **{2, Coll. Society}.**

El Borg (Mersa Matrouh), June (1929) ---- **{2, Coll. Cairo}.**

King Mariout (Alex.), June (1924) ---- **{1, Coll. Ain Shams}.**

W. Gedeirat (Sinai), May (1999), on *Mentha microphylla* Koch; Gabal Serbal (Sinai), May (2000), on *Francoeuria crispa* (Forssk.); Wadi Firan (Sinai), May (2001), on *Acacia nilotica* (L.); W. Aideib (Red Sea), April (2002), on *Salsola baryosma* (Schult.) ---- **{6, Coll.A.El-Torkey}.**

World distribution: Algeria, Saudi Arabia and North Yemen.

Macrocoma seriesericans (Fairmaire, 1876)

(Pl. II, figs. 18 - 21)

Pseudocolaspis seriesericans Fairmaire, Petites Nouve Ent., II, 1876, p. 94.

Pseudocolaspis gossypiata Fairmair, Petites Nouve Ent., II, 1876, p. 94.

Type locality: Algeria, El-Amri (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 5.5 – 6.0 mm.

P.L.: 1.6 – 1.8 mm. P.W.: 1.7 – 1.9 mm.

E.L.: 3.5 – 3.9 mm. E.W.: 2.7 – 3.0 mm.

Body reddish brown; mandibles, labrum, antennal segments brown. Mandibles large. Labrum without a transverse depression. Elytra deeply, densely and irregularly punctate and with 12 regular rows of white erect scales. Hind tibiae with fine bristles apically in the outer part, in addition two spines medially.

Material examined: 16 specimens

Suez, during June (1930) ---------- **{16,Coll. Cairo}.**

World distribution: Algeria (El Amri).

Macrocoma brunnipes (Olivier, 1808)

Eumolpus brunnipes Olivier, Ent., VI, 1808, p. 913, t. 2, f. 26.

Macrocoma variabilis Schauf., Nauq. Otios., I, 1871, p. 202.

Macrocoma cyanea Reffray, Rev. Mag. Zool., (3) I, 1873, p. 384.

Pseudocolaspis brunnipes lefevre, L'Abeille, XIV, 1876, p. 7.

Macrocoma brunnipes ab. *obscuricolor* Pic, L'Echange, 21, 1905, p. 179.

Macrocoma brunnipes ab. *mogadorensis* Pic, bull. Mus. Paris, 1912, p. 220.

Type locality: Morocco (after Junk, 1914b).

Diagnosis (after Lefevre, 1876).

Measurements: Length: 4.8 – 5.3 mm. Width: 2.3 – 2.8 mm.

Body oblong-ovate, gradually attenuated posteriorly, deep densely punctate; metallic green and legs with black patch basally. Clypeus arched in male, subtriangular in female. Thorax spherical, anterior angles slightly rounded; anterior margin strongly impressed in both sides. Femora with median denticle.

World distribution: Morocco, Palastine and Iraq.

Remark: This species was recorded during May, from Sinai, Egypt on *Artemisia Judaica* L. (Alfieri, 1976).

Genus *Malegia* Lefevre, 1883

Malegia Lefevre, Ann. Soc. Ent. France, (6) III, 1883, Bull. p. CXV.
Type species: *Malegia lefevrei* Jacoby, 1883 (after Warchalowski, 1993).

Diagnosis

Body small, elongated, dorsally with close-fitting hairs . Frons broad; eyes protrude notably rounded; clypeus not demarcated from frons. Antennae filiform, first two segments thick. Pronotum rounded on sides, without lateral margins; narrow apically and basally. Elytra broader than pronotum, with distinct humeral callus. Prosternal intercoxal process between coxae very narrow; fore- and middle coxae protruding; femora without denticles; mid tibiae with subapical notch. Tarsal segment bearing claw long and thin; claws with basal denticle . First abdominal sternite equal to second.

Malegia letourneuxi Lefevre, 1883
(Pl. II, figs. 22 - 28)

Malegia letourneuxi Lefevre, Ann. Soc. Ent. France, (6) III, 1883, Bull. P. CXVI.
Type locality: Egypt, Shoubra (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 3.3 – 3.5 mm.
P.L.: 0.9 – 1.1 mm. P.W.: 0.7 – 0.8 mm.
E.L.: 2.0 – 2.2 mm. E.W.: 1.4 – 1.5 mm.

Body black; mandibles, labrum, antennal segments and legs dark brown. Head finely, densely punctate and densely pubescent; labrum and clypeus deeply emarginated anteriorly. Pronotum and elytra with deep dense punctation and numerous white hairs. Thoracic sternites and scutellum with dense punctures and dense pubescence. Humeral callus slightly protruding. Legs densely pubescent and punctate; mid tibiae emarginated subapically. Abdomen densely punctate and pubescent; first abdominal sternite rounded between the hind coxae. Aedeagus (Pl. II fig. 28).

Material examined: 69 specimens
Mansouria (Giza), during June and Oct. (1926); Assiut, May (1927) ---------- **{5 specimens Coll. Agr.}.**
Cairo, May and June (1910); Marg (Qalioubiya) April, May (1912) ---------- **{6, Coll. Alfieri}.**
Cairo, Feb., Sep. & Nov. (1908); Fayioum, July (1908); Luxor, June (1909); Alex. June & Aug. (1910); Giza, Sep. - Dec. (1913) and Marg (Qalioubiya) March, April, July & Dec. (1917) ---------- **{58, Coll. Society}.**

Genus *Pachnephorus* Chevrolat, 1837

Pachnephorus Chevrolat, Bull. Soc. Ent. France, 1837, p. 438.

Type species: *Cryptocephalus pilosiis* Rossi, 1790 (after Warchalowski, 1993).

Diagnosis

Body elongate, cylindrical, or narrow and oval, covered dorsally with fairly dense scales or scale-like bifurcate bristles. Head inclined, projects slightly out of pronotum; frons and vertex broad; clypeus not demarcated from frons. Eyes small, rounded, with slight emargination along inner margin. Antennae short; 1st segment large, covered with scales; 2nd elongated and bent; 7th to 10th triangularly enlarged; 11th oval. Pronotum narrow notably toward base, densely punctate and for most part, with entire or partially obliterated lateral margin. Elytra elongated, wider at base than pronotum, with projecting shoulders, and sharp, deep rows of punctation. Prosternum with groove for reception of antennae. Femora medially thickened; tibiae with longitudinal furrows; mid- and hind tibiae with deep notches on outer side anterior to apex. Claws simple or with denticle.

Pachnephorus bistriatus Mulsant, 1852

(Pl. III, figs. 1 - 6)

Pachnephorus bistriatus Mulsant, Mem. Acad. Lyon, (2) II, 1852, p. 17.

Pachnephorus impressus Rosenhauer, Thiere Andal., 1856, p. 310.

Pachnephorus convexicollis Baly, Trans. Ent. Soc. London, (3) IV, 1867, p. 95.

Type locality: South Europe, Africa, Madagaskar (after Junk, 1914b).

Diagnosis

Measurements: T.L.: 3.0 – 3.2 mm.

P.L.: 0.9 – 1.0 mm. P.W.: 0.8 – 1.1 mm.

E.L.: 2.0 – 2.2 mm. E.W.: 1.4 – 1.5 mm.

Body reddish brown. Head, pronotum and elytra densely punctate and densely covered with white scales. Each mandible with only an elongated tooth apically; labrum slightly emarrginated apically; clypeus slightly curved. Pronotum with anterior angles sharp and pointed and obtuse posterior angles. Thoracic sternites deeply, densely punctate and densely pubescent. Humeral callus protruding. Legs covered with numerous white scales; mid- and hind tibiae excavate subapically; 4th tarsal segment longer than 3rd. Abdomen densely pubescent; 1st abdominal sternite slightly longer than the following two sternites together. Aedeagus (Pl. III fig. 6).

Material examined: 89 specimens

Dakhla Oasis (W. El Gedeid), during Nov. (1928); Aswan, March (1931); Mansouria and Beni Youssef (Giza), May - Dec. (1934) ---------- **{14 specimens, Coll. Agr.}.**

Marg and Ezbet el Nakhl (Qalioubiya), June and July (1910); Dirut (Beheira), July (1923); Baharia Oasis (W. el Gedeid), Nov. (1928) ---------- **{17, Coll. Alfieri}.**

Kafr el batikh (Gharbiya), April and July (1897); Giza, April, Sep. and Oct. (1913); Marg (Qalioubiya), April and Oct. (1915) ---------- **{54, Coll. Society}.**

Ain el Gedeirat (Sinai), May (1999), on *Mentha microphylla* Koch ----------
---------- **{4, Coll.A.El-Torkey}.**

World distribution: Africa, Madagaskar, south Europe and Philippinen.

Subfamily Galerucinae

(Skeletonizing leaf beetles)

Galerucites Latreille, Paris, 1802, p. 228.

Galerucides Motschulsky in Schrenck, Reise Amur, II, 1860, p. 176.

Galerucinae Jacoby, Ann. Mus. Genova, XXIV, 1886, p. 41.

Diagnosis

Body oval, sometimes highly elongated, with often soft bodied. The dorsal surface glabrous or pubescent. Usually dull brown or yellow, sometimes shiny metallic in colouration. The galerucins are characterized by the prognathous to hypognathous head. Frons with or without oblong keel between antennal sockets. Frontal grooves sharp, rarely absent. Clypeus short, highly transverse. Eyes oval, rarely hemispherical, sometimes with faintly and broadly notched inner margin. Mandibles highly flexed. Antennae filiform, thin or distinctly visible, slightly thickened. Pronotum narrower than elytra, transverse, usually narrows more anteriorly than posteriorly. Pronotal angles with aristate pores. Disk moderately convex, smooth or with depressions posteriorly, sometimes with three to five depressions in basal half of disk. Scutellum distinct. Elytra almost invariably enlarged posteriorly. Discal rows of punctation faint, rarely arranged in regularly rows. Epipleura differ in shape, sometimes totally absent. Prosternum with narrow, sometimes almost imperceptible process. Forecoxal depressions closed, half-open, or open. Legs moderate in length; hind femora not thickened. Tibiae with or without spurs. Claws with denticle or cloven. Aedeagus with short proximal part, slightly flexed; tegmen minute, bifurcate.

In Egypt, this subfamily is represented by 8 species in 6 genera. Only five species were available, from which *Calomicrus flavipennis* Lucas was added as new record in this work. The species *Monolepta heydeni* Jonnis was not available, but introduced in the present study after diagnostic characters adopted by Medvedev (1996). The last two species of this group *Monolepta duplicata* Sahlberg and *Apophylia nobilitata* Gerstaecker were not available and not introduced in this work.

Key to the genera of subfamily Galerucinae

1- Antennal insertions situated at level of anterior margin of eyes; vertex and prothorax deeply punctate. Upperside pubescent. ---------- ***Diorhabda*** **Weise**

- Antennal insertions situated behind anterior margin of eyes; vertex impunctate. Upperside not pubescent, sometimes with very short sparse hairs. ---------- 2

2- Claws bifid. Prothorax with transverse groove not interrupted in the middle. Pygidium exposed in both sexes, very long and triangular in female. ---------- ---------- ***Aulacophora*** **Chevrolat**

- Claws appendiculate. Prothorax with transverse groove interrupted in the middle or without transverse groove. Pygidium covered with elytra in both sexes. ----- 3

3- Prothorax with transverse groove in the middle usually interrupted centrally. ------ ---------- ***Asbecesta*** **Harold**

- Prothorax without transverse groove. ---------- 4

4- Anterior coxal cavities open. Both mid and hind tibiae spined. ---------- ---------- ***Calomicrus*** **Stephens**

- Anterior coxal cavities closed. Only hind tibiae spined. ------ ***Monolepta*** **Erichson**

Genus *Asbecesta* Harold, 1877

Asbecesta Harold, Mitt. Munch. Ent. Ver., I, 1877, p. 110.

Type species: *Asbecesta cyanipennis* Harold, 1877(after Junk, 1924).

Diagnosis

Elongated-oval body, more rarely ovoid; dorsally glabrous or with short sparse hairs. Frons with frontal keel triangular, broad or narrow; frontal ridge usually convex. Antennal sockets situated posterior to level of anterior margin of eyes. Eyes oval. Antennae thin, filiform, in male often longer than body, with short 2nd segment; 3rd segment equal to or longer than 2nd ; 4th segment longer than

others. Pronotum with pronotal width greater than length, more rarely squarish, with narrow fimbriate basal and lateral margins; disk convex or flat, with faint depressions occur on the disc usually interrupted. Elytra broader than pronotum, with narrow lateral margin. Epipleura broad in basal part, narrow notably medially, and rarely narrow throughout their length. Forecoxal depressions open; mid- and hind tibiae spined; claws with basal denticle more rarely simple . Pygidium uniformly punctate.

Asbecesta cyanipennis Harold, 1877
(Pl. III, figs. 7 - 13)

Asbecesta cyanipennis Harold, Mitt. Munch. Ent. Ver., I, 1877, p. 110.

Aulacophora aeneipennis Baly, Ent. Month. Mag., XIV, 1878, p. 206.

Asbecesta viridipennis Chapuis, Ann. Mus. Genova, XV, 1879, p. 17.

Asbecesta rugosa Jacopy, Deutsche. Ent. Zeitschr., 1895, p. 186.

Type locality: Middle Africa, Guinea, Usambara (after Junk, 1924).

Diagnosis

Measurements: T.L.: 5.5 – 5.8 mm.

P.L.: 1.0 – 1.2 mm. P.W.: 1.4 – 1.6 mm.

E.L.: 4.0 – 4.2 mm. E.W.: 2.3 – 2.5 mm.

Body testaceous. In male, tip of mandibles and labrum brown; frons, vertex and 3 spots on pronotum black; elytra metallic green. In female, tip of mandibles and labrum dark brown; frons, vertex, most pronotum and elytra metallic dark brown. Head densely punctate and covered with long white hairs; labrum and clypeus with straight margins; frons with elevated part around antennal sockets and depressed longitudinal line extending to vertex. Pronotum transverse, deep sparsely punctate and densely pubescent; anterior angles slightly rounded, posterior angles curved (Pl. III fig. 10 A). In female, pronotum with two big transverse depressions on each side, two elevated parts anteriorly and posteriorly on each side and two short longitudinal lines interrupted medially (Pl. III fig. 10 B). In male, the two transverse depressions slightly depressed and with two slightly elevated parts. Scutellum triangular, densely pubescent with white hairs. Elytra fine densely punctate and densely covered with white hairs; humeral callus protruding. Legs densely pubescent. Basal tarsal segment of hind legs slightly longer than that of fore and mid legs. Abdomen with last abominal sternite deeply emarginated in male (Pl. III fig. 11 A); rounded in female (Pl. III fig.11 B). Aedeagus (Pl. III fig. 12) and spermatheca (Pl. III fig. 13).

Material examined: 37 specimens

Gabal Elba (red Sea), during Jan. (1933) ---------- **{34 specimens, Coll. Agr.}.**

Wadi Aideib (Red Sea), April (2002), on *Salsola baryosma* (Schult.) ----------

---------- **{3, Coll.A.El-Torkey}.**

World distribution: Guinea, Central Africa, Zenzebar, Lake Nyassa and South Yemen.

Genus *Aulacophora* Chevrolat, 1837

Synonyms and type species (after Warchalowski, 1994).

Aulacophora Chevrolat, Bull. Soc. Ent. France, 14, 1837, p. 378.

Type species: *Galeruca quadraria* Olivier, 1808.

Rhaphidopalpa Rosenhauer, Thiere Andalus, 1856, p. 325.

Type species: *Galeruca foveicollis* Lucas, 1808.

Diagnosis

Oblong-oval body, dorsally glabrous, ventrally covered with short dense hairs. Head narrower than pronotum; frontal keel narrow, conical; frontal tubercles slightly convex, small supratubercular furrow deep. Antennae thin, filiform. Pronotal disk convex; transverse furrow deep, medially often flexed and terminally reaching lateral margin; lateral margins medially broadly flexed. Elytra elongated, posteriorly slightly broadened, with minute faint punctation. Epipleura narrow, obliterated posteriorly. Prosternal intercoxal cavities open. 1st segment of hind tarsi almost the same length as other segments. Claws cloven. In male, humeral callus of elytra with very delicate hairs and 5th abdominal sternite deeply trilobate. In female, pygidium projects for most part conically beyond elytral contour.

Aulacophora foveicollis (Lucas, 1849)

(Pl. III, figs. 14 - 20)

Galeruca foveicollis Lucas, Exp. Alger. Ent., 1849, p. 542, t.44, f. 9.

Galeruca abdominalis Fabricius, Mant. Ins., I, 1787, p. 87.

Galeruca nigriventris Redtbacher, Denkschr. Akad. Wiss. Wien., I, 1850, p. 50.

Raphidopalpa foveicollis (Lucas) - Rosenhauer, Thiere Andalus, 1856, p. 325.

Aulacophora foveicollis (Lucas) - Bryant, Ann. & Mag. Nat. Hist., 10(12), 1957, p. 354.

Haltica foveicollis (Lucas) - Shalaby, Bull. Soc. Roy. Ent. Egypt, 46, 1962, p. 341.

Type locality: France (after Junk, 1924 and Warchalowski, 1994).

Diagnosis

Measurements: T.L.: 7.3 – 8.6 mm.

P.L.: 1.2 – 1.5 mm. P.W.: 2.0 – 2.2 mm.

E.L.: 5.8 – 6.3 mm. E.W.: 3.8 – 4.0 mm.

Body testaceous; metasternite and abdominal sternites black; tip of mandibles and anterior part of labrum brown. Head with labrum and clypeus slightly pubescent; mandibles large. Labrum slightly emarginated anteriorly; clypeus with straight margin; frons elevated medially with a transverse depression between eyes. Pronotum in male, with a wide transverse depression medially and an elevated basal part on each side; in female, with only a moderate transverse depression medially; lateral margins wide; anterior and posterior margins fine. Scutellum triangular. Elytra broader subbasally, with irregular superficial punctures. Legs densely pubescent; basal tarsal segment of hind legs about 1 ½ times as long as that of fore and mid legs. The last abdominal sternite with oval long depression at middle in male; with two deprssions in female. Pygidium exposed in both sexes, obviously long and subtriangular in female, moderate in male. Aedeagus (Pl. III fig. 19); spermatheca (Pl. III fig. 20).

Material examined: 438 specimens

Ras El-Bar (Damietta.), during July (1911); Fashn (Miniya), May (1917); Helwan (Cairo), July (1921); Sherbin (Gharbiya), April (1925); Benha (Qalioubiya), May and July (1925); Bilbeis & Zagazig (Sharqiya), May - July (1926), on *Citrullus vulgaris* Schrad.; Kafr Shuker; Baharia Oasis (El -Wadi El- Gedeid), Oct. (1927); Abu Rawash, Kafr Hakim, Mansouria, Kerdasa, Badrashein (Giza), Jan. – Dec. (1929), on *Zea mays* L. and Weeds ---------- **{178 specimens, Coll. Agr.}.** Ezbet el Nakhl (Qalioubiya), Feb., May (1911); Suez, Aug. (1911); Cairo, March (1912); Abu Hamida (Sinai), July (1926); Giza, Jan., July (1935) **{11, Coll. Alfieri}.** Luxor (Qena), July (1910); Marg (Qalioubiya), March - July (1911); Helwan (Cairo), Feb. - Oct. (1913); Abu Rawash, (Giza), Jan. - Dec. (1914); Aswan, July (1914); Beni Mazar (Miniya), Jan. - May (1916) ---------- **{98, Coll. Society}.** Kafr Shuker (Dakhliya), Feb. (1925); Cairo, Dec. (1934); Giza, Dec. (1956) ---------- ----------**{24, Coll. Cairo}.** Cairo, July (1952); Giza, Oct. (1953); Suez, Aug. (1953) ---- **{19, Coll. Ain Shams}.** Manashi (Qanatir), July (1999), on *Sida alba* L.; Siwa Oasis (Mersa Matrouh), Aug. (2000), on *Trifolium alexandrinum* L.; Abu Rawash (Giza), June (2001), on *Tamarix nilotica* (Ethrenh); Ismailia, June (2001), on *Cucumis dudaim* var. *aegyptiacus* L. and *Cucumis pepo* var. *melopepo* L.; Benha (Qalioubiya), Aug. (2002), on *Cucurbita pepo* var. *ovefera* L.; Quesna (Monofiya), Aug. (2002), on *Cucumis sativus* L.; Tanta (Gharbiya), Aug. (2002), on *Corchorus olitorius* L.; Mushtuher (Qalioubiya), Aug. (2002), on *Cucumis sativus* L.; Birgash and Magedla (Giza), Sep. (2002), on *Cucurbita pepo* var. *ovefera* L.; Mansouria and Kerdasa (Giza), Dec.

(2002), on *Corchorus olitorius* L.; Badrashin (Giza), Oct. (2002), on *Medicago sativa*L. ---------- **{108, Coll. A. El-Torkey}.**

World distribution: Mediterranean Region, Saudi Arabia, North Yemen, Oman, Iran, Afghanistan and India.

Genus *Calomicrus* Stephens, 1834 {New Record}

Calomicrus Stephens, Brit. Ent. Mandib., IV, 1834, p. 293.

Type species: *Crioceris circumfusa* Marsham, 1802 (after Warchalowski, 1994).

Diagnosis

Body elongated-oval, more rarely ovoid; dorsally glabrous or with short sparse hairs; often entirely testaceous. Frons with frontal keel triangular, broad or narrow; frontal ridge usually convex. Antennal sockets situated posterior to level of anterior margin of eyes. Antennae thin, filiform, in male often longer than body, with short 2nd segment; 3rd segment longer than 2nd. Pronotum with pronotal width greater than length, with narrow fimbriate basal and lateral margins; disk convex or flat, sometimes with indistinct depression. Elytra broader than pronotum, with narrow lateral margin. Epipleura broad in basal part, narrow notably medially, and rarely narrow throughout their length. Forecoxal depressions open. Mid- and hind tibiae spined . Basal tarsal segment of hind legs about as long as the other three segments combined. Claws with basal denticle more rarely simple . Pygidium uniformly punctate.

Calomicrus flavipennis Lucas, 1849 {New Record}

(Pl. III, figs. 21 - 28)

Calomicrus flavipennis Lucas, Expl. Alg. Ent., 1849, p. 543, t.44, f.10.

Type locality: Algeria, Tunis (after Junk, 1924).

Diagnosis

Measurements: T.L.: 4.5 – 5.0 mm.

P.L.: 0.8 – 0.9 mm.	P.W.: 1.2 – 1.3 mm.
E.L.: 3.5 – 4.0 mm.	E.W.: 2.3 – 2.5 mm.

Body testaceous; tip of mandibles brown; pygidium with two black spots. Head finely punctate; mandibles with four teeth apically, right mandible acute than left; labrum slightly emarginated anteriorly and curved laterally; clypeus curved; frons with two grooves for reception of 1st antennal segment; frontal suture present. Pronotum sparsely punctate; anterior angles slightly curved, posterior angles pointed and sharp; anterior and posterior margins thin, lateral margin broad. Scutellum

triangular. Elytra finely and densely punctate; elytral epipleura broad along anterior half and narrower posteriorly; humeral callus slightly protruding. Legs densely pubescent. The last abdominal sternite with two elongate vertical grooves and curved margin medially in male; with short vertical grooves and straight margin medially in female. Pygidium densely pubescent. Aedeagus (Pl. III fig. 28).

Material examined: 25 specimens
Wadi Aideib (Red Sea), during March (2000), on *Salsola volkensii* Asch & Schw. –
---------- **{25,Coll.A.El-Torkey}.**

World distribution: Tunis and Algeria.

Genus *Diorhabda* Weise, 1883

Diorhabda Weise, Deutsche Ent. Zeitschr., XXVII, 1883, p. 316.
Radymna Reitter, Fauna Germ., IV, 1912b, p. 135.
Prophyllis Reitter, Fauna Germ., IV, 1912b, p. 135.
Type species: *Chrysomela elongata* Brulle, 1832 (after Warchalowski, 1994).

Diagnosis

Body oblong-oval, slightly or moderately swollen. Dorsally almost glabrous or with fine close-fitting hairs. Frons with frontal keel not developed; frontal ridge large, smooth, convex, demarcated by sharp furrow. Labrum with transverse row of aristate pores. Antennae slightly thick; 3rd or 4th segment longest. Pronotum transverse, with rounded sides; lateral margins narrow or slightly flexed; pronotal disk with two rounded lateral depressions. Elytra with faint dense punctation; lateral margin posterior to humeral callus broadly flexed. Tibiae of fore- and mid- legs with spurs in male, without spurs in female. Tarsi narrow; underside with incomplete tufts of hairs. Claws long, very sharply incised in apical half. Prosternal intercoxal cavities closed.

Diorhabda elongata (Brulle, 1832)
(Pl. IV, figs. 1 - 8)

Chrysomela elongata Brulle, Exp. Morec. Zool., III, 1832, p. 271, t. 44, f.10.
Chrysomela elongata ab. *carinata* Faldmann, Nouv. Mosc., V, 1837, 329.
Chrysomela elongata ab. *sublineata* Lucas, Exp. Alg. Ent.,1849,p.542,t.44, f. 8.
Chrysomela costalis Mulsant, Mem. Ac. Lyon, II, 1852, p. 16.
Galeruca elongata Joannis, Abeille, III, 1866, p. 81, 83 - 84.
Chrysomela carinulata Desbrochers, Abeille, VII, 1870, p. 134.

Diorhabda elongata (Brulle)- Weise, Deutsche Ent. Zeitschr., 27, 1883, p. 316.
Type locality: France (after Junk, 1924; Warchalowski, 1994).

Diagnosis

Measurements: T.L.: 6.0 – 8.0 mm.

P.L.: 1.0 – 1.2 mm.	P.W.: 1.7 – 2.1 mm.
E.L. ; 4.5 – 6.0 mm.	E.W.: 2.5 – 3.0 mm.

Body testaceous; tip of mandibles, anterior margin of labrum, apices of antennal segments, one spot on frons, two spots on each side of pronotum, two longitudinal shadow lines united apically on each elytron, apical part of femora, basal and apical part of tibiae, and tarsal segments, all black. Head sparsely punctate; mandibles with three apical teeth; anterior margin of labrum slightly emarginated; clypeus curved; frons with elevated part behind antennae and longitudinal line at middle; eyes prominent and slightly emarginated. Pronotum wide; sparsely punctate; elevated basally; anterior and posterior margins curved medially and straight on each side; lateral margin slightly arched. Scutellum subtriangular. Elytra with irregular deep and dense punctation. Legs densely pubescent; 4th tarsal segment as long as the three basal segments together. The last abdominal sternite with longitudinal groove in male; with transverse depression posteriorly in female. Aedeagus (Pl. IV fig. 7) and spermatheca (Pl. IV fig. 8).

Material examined: 336 specimens

Abu El-Matameir (Beheira), during July (1914); Khanka (Qalioubiya), Sep. (1921); Beni Mazar (Miniya), May (1924), on *Tamarix* sp.; Mansouria (Giza), June (1925); Abu Souier (Sharqiya), July (1925); Kharga Oasis (El -Wadi El- Gedeid), June (1926); Suez, Oct. (1926); Kantara (Sinai), June (1930); Cairo, Nov. (1931), on *Tamarix* sp.; Fayioum, May (1934) ---------- **{107 specimens, Coll. Agr.}.**

Alag & Ezbet el Nakhl (Qalioubiya), May and Sep. (1913); Helwan (Cairo), May (1925); Kom Ombo (Aswan) Sep. ---------- **{18, Coll. Alfieri}.**

Giza, Sep. (1907); Luxor (Qena), Jan. (1909); Fayed (Ismailia), March and Oct. (1910); Sherbin (Gharbiya), April (1913); Beni Mazar (Miniya), May (1915); Max (Alex.), March, Aug. and Dec. (1915); Marg & Alag (Qalioubiya), March, July and Oct. (1917); Helwan (Cairo), March - Oct. (1918) ---------- **{77, Coll. Society}.**

Gabal Asfer (Qalioubiya), May (1952); Wadi Degla (Cairo), Aug. (1952); Pyramids (Giza) Aug. (1952); Fayioum, May (1952) ---------- **{12, Coll. Ain Shams}.**

Wadi El-Natroun (Alex.), Oct. (1999), on *Corchorus olitorius* L.; Tamiya (Fayioum), June (1999), on *Trifolium alexandrinum* L.; Warrak & Kafr Hakim (Giza), July (1999), on *Sida alba* L.; Port Said, Sep. (2000), on *Tamarix nilotica* (Ethrenh); Gabal Asfar (Qalioubiya), Sep. (2001), on *Cucurbita pepo* var. *ovefera* L.; Rashid (Bheira), Sep. (2001), on *Cucumis sativus* L.; Ashmun (Monofiya), May (2001), on *Cucumis sativus* L.; Dumiat, Oct. (2001), on *Tamarix nilotica* (Ethrenh); Paris Oasis (El-Wadi El-Gedeid), Nov. (2001), on *Cucurbita pepo* var. *ovefera* L. --- ---------- **{122, Coll.A.El-Torkey}.**

World distribution: Algeria, Mongolia and Caucasian.

Genus *Monolepta* Erichson, 1843

Monolepta Erichson, Arch. F. Nat., IX, 1, 1843, p. 265.
Ochralea Clark, In Col. Catalog., Berlin, 1865, p. 144.
Candezea Chapuis, Ann. Mus. Stor. Nat. Genova, 15, 1879, p. 24.
Type species: *Galeruca pauperata* Erichson, 1843(after Wachalowski, 1994).

Diagnosis

Body ovoid, swollen; dorsally glabrous, sometimes with very short sparse hairs. Frontal keel high; frontal ridge on top distinctly separated antennal sockets situated somewhat anterior to level of middle of inner margin of eyes. Antennae thin, usually slightly longer than half body length; 3rd segment longer than or equal to 2nd , 4th about as long as 2nd and 3rd together. Pronotum transverse, anterior margin without fimbria; disk convex, without depressions in the middle or with feeble indistinct impression. Elytra convex, with narrow lateral margin, and minute faint punctation; in male of some species, oval depressions present along suture. Epipleura in apical half very narrow and linear. Prosternal intercoxal cavities closed. Hind tibiae spined; 1st segment of hind tarsi as long as or longer than other segments together; claws with denticle at base.

Key to the species of genus *Monolepta* Erichson

1- Insect body yellow; each elytron with two black transverse bands; aedeagus (Pl. IV, fig. 16) ---------- ***Monolepta lepida* Reiche**

- Insect body testaceous; elytra black; aedeagus (Pl. IV, fig. 17) ---------- ---------- ***M. heydeni* Joannis**

Monolepta lepida Reiche, 1858

(Pl. IV, figs. 9 - 16)

Monolepta lepida Reiche, Ann. Soc. Ent. France,(3)VI, 1858,p. 254, t. 1, f. 10.

Type locality: Palastine (after Junk, 1924).

Diagnosis

Measurements: T.L.: 4.0 – 4.5 mm.

P.L.: 0.7 – 0.9 mm. P.W.: 1.2 – 1.4 mm.

E.L.: 3.1 – 3.4 mm. E.W.: 2.2 – 2.4 mm.

Body yellow; head testaceous and two transverse bands on each elytron black. Head sparsely punctate; mandibles with three teeth apically; labrum slightly emarginate; clypeus with straight margin; frons with frontal suture and two grooves for reception 1st antennal segments and elevated part between them. Pronotum broad, with sparse superficial punctures; anterior angles rounded, posterior angles sharp and pointed; pronotal margins with fine edge. Scutellum triangular. Elytra finely and densely punctate; elytral epipleura thin apically and wide at basal 1/3; each elytron with two transverse bands, one basally and the other subapically. Legs densely pubescent. The last abdominal sternite in male, with two elongate vertical grooves and curved margin in between. In female, with two short vertical grooves and straight margin in between. Aedeagus (Pl. IV fig. 16)s.

Material examined: 181 specimens

Gabal Elba (Red Sea), during Jan. and Feb. (1933); Sinai, May (1935) ---------- **{24 specimens, Coll. Agr.}.**

Gabal Elba (Red Sea), Jan. (1932); Firan Oasis (Sinai), May (1935); Sant Catherin (Sinai), May ---------- **{4, Coll. Alfieri}.**

Gabal Elba (Red Sea), Jan. (1930); Wadi Lega (Sinai), April (1940); Karm Alam (Sinai), April (1940) ---------- **{15, Coll. Cairo}.**

Wadi Gedeirat (Sinai), May (1999), on *Mentha micophylla* Koch and *Hyoscyamus niger* L.; Ain el-Gedeirat (Sinai), May (1999), on *Acacia nilotica* (L.) and Wadi El-Lega and Wadi Talh (Sinai), July (1999), on (light trap); Wadi Gebal (Sinai), July (2001), on *Mentha microphylla* Koch; Wadi Galala (Sinai), March (2001), on *Mentha microphylla* Koch; W. Firan (Sinai), May (2001), on *Acacia nilotica* (L.) --- ---------- **{138, Coll.A.El-Torkey}.**

World distribution: Palastine, Saudi Arabia, South Yemen and Oman.

Monolepta heydeni Joannis, 1866

(Pl. IV, fig. 17)

Monolepta heydeni Joannis, L'Abeille, III, 1866, p. 156.

Type locality: Egypt (after Junk, 1924).

Diagnosis (after Medvedev, 1996).

Body testaceous, elytra black, antennae dark with vulvous basal segments. Fourth antennal segment in male much longer than first, more than twice as long as 2nd and 3rd combined. Upperside shining; prothorax with impression, distinctly punctate. Aedeagus (Pl. IV fig. 17).

World distribution: Saudi Arabia and North Yemen.

Remark: This species was recorded from Cairo (Alfieri, 1976).

Subfamily Hispinae

(Leaf mining beetles)

Hispites Gyllenhal, Col. Sive Eleuterata, 1, part 3, 1813, p. 448.

Hispidae Baly, Cat. His. Brit. Mus., 1858, p. 1-172.

Hispini Redtenbacher, Fauna Austr., ed. 3, II, 1874, p. 519.

Hispides Chapuis, Gen. Col., XI, 1875, p. 251.

Hispinae Peringuey, Ann. South Africa Mus., 1898, p. 113.

Diagnosis

Generally elongated-oblong beetles, sculptured or spinose dorsally, with parallel sides and sometimes broadened posteriorly. Hispines are characterized by their opisthognathous head with mouth parts directed backward. Frons often with pits, oblong keels, or transverse depressions. Eyes perceptibly swollen. Antennae filiform with apical segments 8th to 11th broadened, and their insertion very close together on the frons. Pronotum usually narrower than elytra, transverse or elongated, usually fimbriate laterally. Elytra mostly with regular rows of punctation. Legs short and thick, tibiae often flexed. Claws free, more rarely fused. Abdomen with the First two abdominal sternites fused. Aedeagus long, cylindrical, with obtuse or sharp apex; tegmen minute and short.

In Egypt, this subfamily is represented by 3 species in 2 genera. These species are *Dicladispa pallida* (Guerin), *Dicladispa testacea* (Linnaeus) and *Dactylispa tewfiki* Pic. Only the first two species were available. The last species was not available, but introduced in the present work after diagnostic characters adopted by Pic (1939).

Key to the genera of subfamily Hispinae

1- Anterior margin of prothorax with two spines on each side, lateral margins with three spines; antennae distinctly enlarged toward apex -------- ***Dactylispa*** **Weise**

- Anterior margin of prothorax without spines, lateral margins with seven or eight spines on each side; antennae not enlarged apically ---------- ***Dicladispa*** **Gastro**

Genus *Dactylispa* Weise, 1897

Dactylispa Weise, Deutsch. Ent. Zeitschr., 1897, p. 137.

Podispa Chapuis, Gen. Col., XI, 1875, p. 335.

Monohispa Weise, Deutsch. Ent. Zeitschr., 1897, p. 147.

Triplispa Weise, Deutsch. Ent. Zeitschr., 1897, p. 147.

Type species: *Dactylispa andreuesi* Weise = *Hispa severinii* Gastro (after Kimoto, 1966).

Diagnosis

Body elongate, dorsally moderately convex, with long spinules, glabrous or pubescent. Head distinctly visible from above, coarsely rugose; frons distinct from vertex by thin furrow; frontogenal suture very narrow, sharp and short. Eyes swollen, very faintly emarginated; antennae short; mandibles with sharp denticles along inner margin. Pronotum almost flat, with six angles, maximum width postmedial with broad transverse depression subbasally; anterior margin with two or three spines and lateral margins with three long spines on each side. Elytra with regular deep punctation, projecting spinules in intervals; anterior and lateral margins with row of spines. Prosternal intercoxal cavities closed. Femora covered with setae; tibiae with three keels, of which outer one near apex with denticle.

***Dactylispa tewfiki* Pic,1939**

Dactylispa tewfiki Pic, 1939, Bull. Soc. Fouad 1st. Ent., 23, p. 148.

Type locality: Egypt (after Pic, 1939).

Diagnosis (after Pic, 1939).

Body brilliant black; elytra reddish brown. Antennae short; apical segments impressed, wide, nearly connected and great in size; last segment tapering. Pronotum slightly short, densely punctate, posteriorly impressed transversally; anterior margin with two obvious long spines, lateral margin with three spines on each side, the spines anteriorly and laterally connected at base. Elytra elongate, great in size, partly lined punctate, with numerous long spines, laterally very long.

Remark: This species was recorded during Jan., from Wadi Aideib (Red Sea, Egypt) (Alfieri, 1976).

Genus *Dicladispa* Gastro, 1897

Dicladispa Gastro, Mus. Civ. Genova, Ann. 38, 1897, p. 81.
Hispa Linnaeus, Sys. Nat., ed. XII, 1767, p. 603.
Type species : *Hispa testacea* Linnaeus (after Kimoto, 1966).

Diagnosis

Body elongated, flat dorsally, with long spines and pubescent. Head distinctly visible from above, deep densely punctate; frontogenal suture narrow and short. Eyes swollen, very faintly emarginated. Antennae short. Mandibles with sharp denticles along inner margin. Pronotum flat, with transverse depression subbasally and sometimes with pits medially; lateral margins with seven, eight or thirteen long spines attached together at base on each side. Elytra with regular rows of deep punctures and projecting spines in intervales, surface covered with variable length of spines. Prosternal intercoxal cavities closed. Legs pubescent, tibiae slender gradually broadened apically.

Key to the species of genus *Dicladispa* Gastro

1- Pronotum with a group of seven elongated stout spines on each side, and with two depressions medially; body covered with long hairs and spines ---------- ---------- ***Dicladispa pallida* (Guerin)**

- Pronotum with group of thirteen elongated stout spines on each side; body covered with pubescence and spines ---------- ***D. testacea* (Linnaeus)**

Dicladispa pallida (Guerin, 1841)

(Pl. IV, figs. 18 - 19)

Hispa pallida Guerin, Rev. Zool., 1841, p. 13.
Type locality: Senegal (after Junk, 1911).

Diagnosis

Measurements: T.L.: 4.5 – 4.7 mm.

P.L.: 1.3 – 1.5 mm.	P.W.: 1.2 – 1.3 mm.
E.L.: 3.2 – 3.4 mm.	E.W.: 2.2 – 2.4 mm.

Pronotum, elytra and legs reddish brown; head and ventral surface brown. Head and antennal segments 1^{st} – 7^{th} covered with long hairs, 8^{th} – 11^{th} antennal segments with short hairs (Pl. IV fig. 19). Pronotum slightly longer than its width, with a group of seven elongate stout spines on each side (Pl. IV fig. 18), with two depressions medially, deep densely punctate and hairy and with elevated basal

margin. Thoracic sternites densely pubescent. Scutellum triangular and pubescent. Elytra deeply densely punctate, hairy and covered with long spines. Legs slightly pubescent; basal tarsal segment shorter than 2nd , 3rd tarsal segment deeply bilobed.

Material examined: 15 specimens

Gebel Elba (Red Sea), during Jan. (1933) ---------- **{Coll. Agr.}.**

World distribution: Senegal.

***Dicladispa testacea* (Linnaeus, 1767)**

(Pl. IV, figs. 20 - 22)

Hispa testacea Linnaeus, Sys. Nat., ed. XII, 1767, p. 603.

Hispa testacea ab. *occator* Brulle, Webb. and Bertholot, Canar. Ent., 1838, p. 73, t.1, f.17.

Hispa testacea ab. *algeriana* Guerin, Rev. Zool., 1841, p. 12.

Hispa testacea ab. *numida* Guerin, Rev. Zool., 1841, p. 14.

Type locality: South Europe, North Africa, Syria and Kleinasien (after Junk, 1911).

Diagnosis

Measurements: T.L.: 3.5 – 3.7 mm.

P.L.: 1.1 – 1.2 mm. P.W.: 1.0 – 1.1 mm.

E.L.: 2.0 – 2.2 mm. E.W.: 1.8 – 2.1 mm.

Body brown; head and ventral surface dark brown. Head and antennae pubescent. Pronotum and elytra covered with short hairs, as well as a group of thirteen elongate stout spines on each side of pronotum.

Material examined: 46 specimens

Materia and Ain Shams (Cairo), during May (1912); Montazah (Alex.), Aug. (1917); Kafr el-sheikh, July and Oct. (1918) ---------- **{11 specimens Coll. Alfieri}.**

Materia and Zeitoun (Cairo), May and Aug. (1912) ---------- **{35, Coll. Society}.**

World distribution: Algeria, North Africa, Syria, South Europe and Canary Island.

The systematic position of the chrysomelid taxa with the scope of the present work follow, in the major part, Alfieri (1976) in his monograph about the coleopteran of Egypt. In some cases, the names used to be applied to this group have been subjected to some nomenclatorial changes, i.e., in subfamily Cassidinae : two species *Cassida* (*Falsocassidula*) *rabimovitchi* Pic and *Cassida* (*Cassidula*) *vittata* Villers were corrected to appear without subgenera. In subfamily Hispinae : two species were transferred to another genus, i.e., *Hispa pallida* Guerin and *Hispa testacea* ab. *algeriana* Guerin were changed to *Dicladispa pallida* (Guerin) and *D. testacea* (L.)

respectively. In subfamily Galerucinae : one species was transferred to another genus, i.e., *Rhaphidopalpa foveicollis* (Lucas) was changed to *Aulacophora foveicollis* Lucas. It is worth to mention here that, the genus *Calomicrus* Stephen (Galerucinae), not previously known to exist in Egypt was added as a new record, also *Calomicrus flavipennis* Lucas was recorded for the first time in Egypt during this work.

REFERENCES

ALFIERI, A. (1976): The Coleoptera of Egypt. *(Bull. Soc. Ent. Egypt, 5 : 225 – 238).*

AN, S.L.; Y.J. KWON and S.M. LEE (1985): Classification of the leaf beetles from Korea Part 1. Subfamily Hispinae (Colcoptera: Chrysomelidac). *(Insecta Koreana, 5: 1- 9).*

BECHYNE, J. (1947): Chrysomeloidea Madagassa (Coleoptera). *(Sbornfk Entomologického Oddëleni Národniho Musea v praze, 25(326): 29 – 47).*

BECHYNE, J. (1949): Liste provisoire des Eumolpides de la République Argentine et observations diverses sur les Eumolpides de l'Amerique du Sud. *(Acta Zoologica Lilloana, 8: 457- 535).*

BECHYNE, J. (1951): Liste provisoire des Eumolpides de Bolivie et observations diverses sur les espèces de l'Amerique du Sud- (Col. Phytophaga). *(Entomohgische Arbeiten aus dem Museum G. Frey, 2(2): 227- 535).*

BECHYNE, J. (1953): Katatog der neotropischen Eumolpiden. *(Entomologische Arbeiten aus dem Museum G. Frey, 4: 26 – 303).*

BECHYNE, J. (1954): La liste des Eumolpides de Rio Grande do Sul (Brésil) et observations diverses sur les espèces néotropicales. *(Arquivos do Museu Paranaense, 10(2): 141- 230).*

BECHYNE, J. (1957): Contribution a l'étude des Chrysomeloidea des Iles Mascareignes.1. Eumolpidae. *(Bull. of the Mauritius Institute, 5(1): 7 – 21).*

BECHYNE, J. (1958): Notizen zu den neotropischen Chrysomeloidea (Col. Phytophaga). *(Ent. Arbeiten aus dem Mus. G. Frey, 9(2): 478 – 706).*

BECHYNE, J. (1960): Alticidae (Coleoptera, Phytophaga). Exploration du parc National de l'Upemba. *(Mission G.F. de Witte, 59: 39 – 114).*

BOOTH, R. G.; M. L. COX and R. B. MADGE (1990): Guides to insects of importance to man. *((3) Coleoptera, 134 – 159).*

Plate I

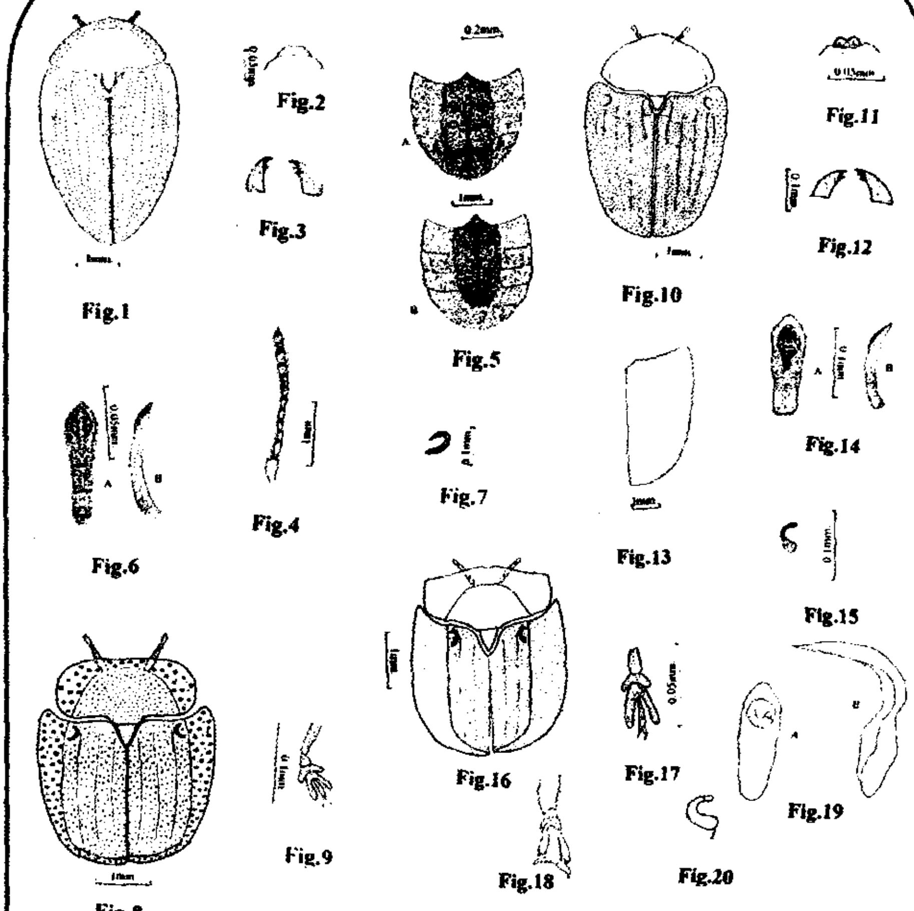

Fig. 1 - Adult stage of *Cassida vittata*. Fig. 2 - Labrum and clypeus. Fig. 3. Mandibles. Fig. 4 - Antenna. Fig. 5- A bdominal sternite showing difference between, A. male, B. female. Fig. 6- A&B- Dorsal and lateral view of aedeagus. Fig. 7- Spermatheca. Fig. 8 - Adult stage of *Cassida sabiasvicki*. Fig. 9 - Tarsal segment. Fig. 10 - Adult stage of *Hypocassida subferruginea*. Fig. 11 - Labrum and clypeus. Fig. 12 - Mandibles. Fig. 13 - Dorsal view of elytron showing denticles in basal margin. Fig. 14 - A&B- Dorsal and lateral view of aedeagus. Fig. 15 - Spermatheca. Fig. 16- Adult stage of *Oxylepis deflexicollis*. Fig. 17 - Tarsal segment. Fig. 18- Claws of fore leg asymmetrical of *Ischyronota desertorum*, After Lopatin (1984b). Fig. 19- A&B- Dorsal and lateral view of aedeagus, After Lopatin (1984b). Fig. 20- Spermatheca, After Lopatin (1984b).

Plate II

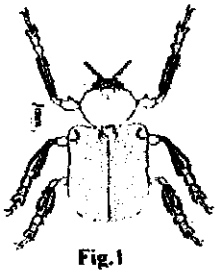

Fig.1

Fig.2

Fig.3

Fig.4

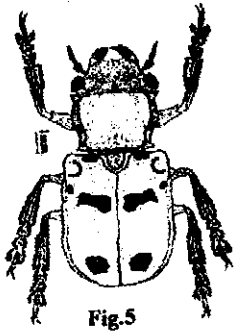

Fig.5

Fig.6

Fig.7

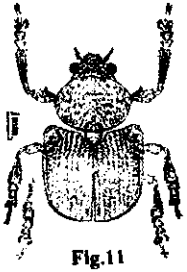

Fig.11

Fig.12

Fig.13

Fig.14

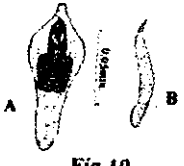

Fig.10

Fig.9

Fig.8

Fig.18

Fig.15

Fig.16

Fig.17

Fig.19

Fig.20

Fig.21

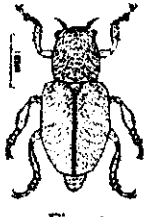

Fig. 22

Fig. 23

Fig. 24

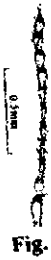

Fig. 25

Fig. 26

Fig. 27

Fig. 28

Fig. 1- Adult stage of *Chiroptera bimaculata*. Fig. 2 - Labrum and clypeus. Fig. 3 - Mandibles. Fig. 4 - *Spermatheca*. Fig. 5- Adult stage of *Enyopo rubra*. Fig. 6- Labrum and clypeus. Fig. 7- Mandibles. Fig. 8 - Antenna. Fig. 9 - Claws. Fig. 10 - A&B- Dorsal and lateral view of aedeagus. Fig. 11- Adult stage of *Macrocoma lapricoti*. Fig. 12 - Labrum and clypeus. Fig. 13 - Mandibles. Fig. 14 - Antenna. Fig. 16 - Hind tibia showing bristles and spines. Fig. 16- A&B- Dorsal and lateral view of aedeagus. Fig. 17- Spermatheca. Fig. 18- Labrum and clypeus of *Macrocoma sericeicoma*. Fig. 19- Mandibles. Fig. 20- Antenna. Fig. 21- Hind tibia showing bristles and spines. Fig. 22 - Adult stage of *Malegia latarmaxi*. Fig. 23 - Clypeus. Fig. 24 - Labrum. Fig. 25 - Antenna. Fig. 26 - Middle tibia showing callosity. Fig. 27 - Tarsal segment. Fig. 28 - A&B- Dorsal and lateral view of aedeagus.

PlateIII

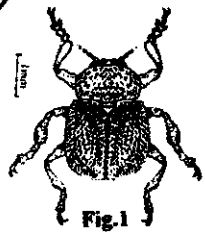
Fig.1


Fig.2


Fig.3


Fig.4

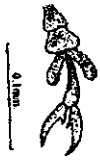
Fig.5

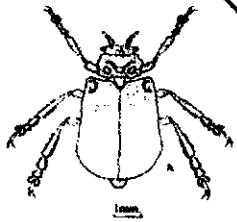
Fig.14

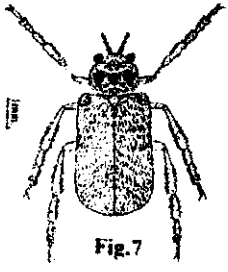
Fig.7


Fig.8


Fig.6


Fig.10


Fig.9


Fig.18


Fig.15


Fig.16


Fig.17


Fig.12


Fig.13

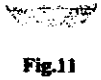
Fig.11


Fig.19

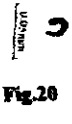
Fig.20

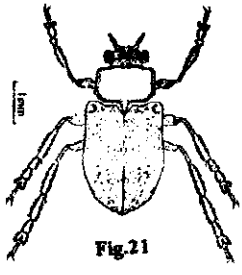
Fig.21

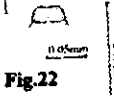
Fig.22

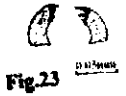
Fig.23


Fig.24


Fig.25

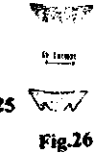
Fig.26


Fig.27


Fig.28

Fig.1- Adult stage of *Parhoplophorus blanchetus*. Fig. 2 - Labrum and clypeus. Fig. 3 - Mandibles. Fig. 4 - Antenna. Fig. 5- Tarsal segment. Fig.6 - A&B- Dorsal and lateral view of aedeagus. Fig. 7- Adult stage of *Adoretus cyanipennis*. Fig. 8- Dorsal view of head. Fig. 9 - Antenna. Fig.10 - Dorso-lateral view of prothorax. A. male, B. female. Fig. 11 - Last abdominal sternites, A. male, B. female. Fig.12 - A&B- Dorsal and lateral view of aedeagus. Fig.13 - Spermatheca. Fig.14 - A&B- Adult stage of *Anisoplia foveicollis*. Fig.15 - Dorsal view of head. Fig.16 - Labrum and clypeus. Fig.17- Mandibles. Fig.18- Dorso-lateral view of prothorax, A. male, B. female. Fig.19- A&B- Dorsal and lateral view of aedeagus. Fig. 20- Spermatheca. Fig. 21- Adult stage of *Calamicrus flavipennis*. Fig. 22 - Labrum and clypeus. Fig. 23 - Mandibles. Fig. 24 - Dorsal view of head. Fig. 25 - Antenna. Fig. 26 - Last abdominal sternites, A. male, B. female. Fig.27- A&B- Dorsal and lateral view of aedeagus. Fig. 28 - A,B&C- Legs (Fore, Mid- and Hind).

PlateIV

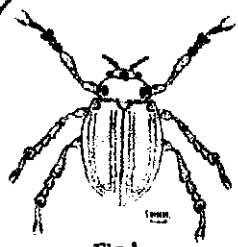

Fig.1

Fig.2

Fig.3

Fig.4

Fig.5

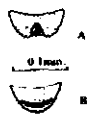

Fig.6

Fig.7

Fig.8

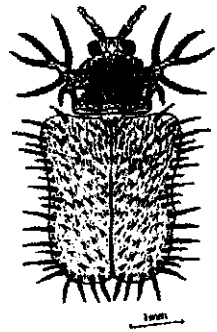

Fig.18

Fig.19

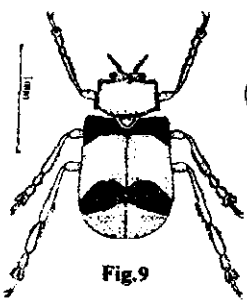

Fig.9

Fig.14

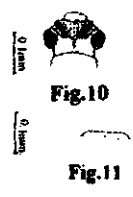

Fig.10

Fig.11

Fig.12

Fig.13

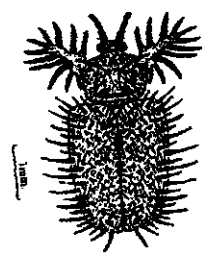

Fig.20

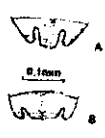

Fig.15

Fig.16

Fig.17

Fig.21

Fig.22

Fig. 1- Adult stage of *Dierhabda elongata*. Fig. 2 - Dorsal view of head. Fig. 3 - Clypeus. Fig.4 - Labrum. Fig. 5- Mandibles. Fig. 6- A&B- Last abdominal sternites showing difference between male and female. Fig.7- A&B- Dorsal and lateral view of aedeagus. Fig.8- Spermatheca. Fig.9 - Adult stage of *Monolepta lepida*. Fig.10 - Dorsal view of head. Fig. 11- Clypeus. Fig.12- Labrum. Fig.13 - Antenna. Fig.14- Mandibles. Fig.15 - A&B- Last abdominal sternites showing difference between male and female. Fig.16- A&B- Dorsal and lateral view of aedeagus. Fig.17- Dorsal view of aedeagus of *Monolepta hyalina* ,After Medvedev (1996). Fig.18- Adult stage of *Diclladispa pallida*. Fig.19- Antenna. Fig. 20- Adult stage of *Diclladispa testacea*. Fig. 21- Antenna. Fig. 22- Fore leg.

BORDY, B. and S. DOGUET (1987): Contribution à la conn. des Cassidinae de France Étude de leur spermathèque (Col.: Chrysomelidae). *(Nouv. Rev. Entomol. (N.S.), 4: 161-176).*

BOROWIEC, L. (1985a): Contribution to the knowledge of African Cassidinae, *(1. Polskie Pismo Entomologiczne, 55(2): 223 – 244).*

BOROWIEC, L. (1985b): Contribution to the knowledge of African Cassidinae. *(2. Polskie Pismo Entomologiczne, 55(3): 439 – 449).*

BOROWIEC, L. (1985c): Contnbution to the knowledge of African Cassidinae, *(3. Polskie Pismo Entomologiczne, 55(4): 791- 809).*

BOROWIEC, L.; V. CHIKATUNOV and J. HALPERIN (1997): The Cassidinae (Coleoptera: Chrysomelidae) of Israel. *(Isr. Joum. Ent., 31: 147-152).*

BURAKOWSKI, B.; M. MROCZXOWSKI and J. STEFANSKA (1991): Stonkowate – Chrysomelidae, pt-2. Catalog faimy Polski. *(Warszawa, pt. 23, Chrzasicze Coleoptera, Tom. 17, 227 pp).*

CHEN, S. H. (1964): Evolution and classification of the chrysomelid beetles. *(Acta Entomologica Sinica, 13(4): 469- 483. In Chinese with English summary).*

CHEN, S. H. (1985): Phylogeny and classification of the Chrysomeloidea. *(Entomography, 3: 465 – 475).*

CHEN, S. H. (1986): *(*Coleoptera Hispidae. Fauna Sinica.*)* Science Press, Beijing. *(In Chinese with keys in English).*

CHUJO, M. (1962): A taxonomic study on the Chrysomelidae (Insecta: Coleoptera) from Formosa. Part XI. Subfamily Galerucinae. *(Philippine Journal of Science, 91(1-2): 1 – 239).*

GRESSITT, J.L. (1957): Hispine beetles from the South Pacific. *(Nova Guinea, (New Series) 8(2): 205 – 324).*

GRESSITT, J.L. (1960): Papuan-West Polynesian hispine beetles (Chrysomelidae). *(Pacific Insects, 2(1): 1 – 90).*

GRESSITT, J.L. (1963): Hispine beetles (Chrysomelidae) from New Guinea. *(Pacific Insects, 5(3): 591 – 714).*

GRESSITT, J.L. (1967): Chrysomelid beetles from the Papuan subregion. 4 (Eumolpinae, 2). *(Pacific Insects, 9(2): 295 – 340).*

GRESSITT, J.L. (1969): Chrysomelid beetles from the Papuan subregion, 6 (Eumolpinae, 4).*(Pacific Insects, 11(1): 1 – 31).*

GRESSITT, J. L. and S. KIMOTO (1963): The Chrysomelidae (Col.) of China and Korea, Part 2.*(Pacific Insects Monograph, 1B: 301 – 1026).*

JUNK, W. (1911): Coleopterorum Catalogus. *(Pars 35 : Weise, Hispinae, 1- 200).*

JUNK, W. (1914a): Coleopterorum Catalogus. *(Pars 62: Weise, Cassidinae, 1- 250).*

JUNK, W. (1914b): Col. Catalogus. *(Pars 59: Clavareau, Eumolpinae, 1 – 200).*

JUNK, W. (1924): Coleopterorum Catalogus. *(Pars 78: Weise, Galerucinae, 1- 300).*

KIMOTO, S. (1964a): The Chrysomelidae of Japan and Ryukyu Islands IV. (Eumolpinae). *(Jor. Fac. Agr., Kyushu Univ., 13 (2): 235 – 262).*

KIMOTO, S. (1964b): The Chrysomelidae of Japan and Ryukyu Islands VI. (Galerucinae). *(Jor. Fac. Agr., Kyushu Univ., 13 (2): 287 – 308).*

KIMOTO, S. (1965): The Chrysomelidae of Japan and Ryukyu Islands VII. (Galerucinae). *(Jor. Fac. Agr., Kyushu Univ., 13 (3): 369 – 400).*

KIMOTO, S. (1966): The Chrysomelidae of Japan and Ryukyu Islands XI. (Hispinae & Cassidinae). *(Jor. Agr., Kyushu Univ., 13 (4): 635 – 671).*

KIMOTO, S. (1989): Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam. *(IV. Galerudnae. Esakia, 27: 1 – 241).*

KIMOTO, S. and J. L. GRESSITT (1982): Chrysomelidae (Coleoptera) of Thailand, Cambodia, Laos and Vietnam. *(3. Eumolpinae. Esakia, 18: 1 – 141).*

LABOISSIERE, V. (1920): Descriptions d'espèces nouvelles de Galerucini recueillies en Éthiopie etdans l'Afrique orientale par M.M. de Rothschild (1904-1906). *(Bull. Mus. Nat. d'Histoire Naturelle, Paris, 26(1): 26 – 30).*

LABOISSIERE, V. (1922): Revision du groupe des Oidites Africains (Col. Chrysomelidae). *(Ann. Soc. Ent. France, 90(3 & 4): 193 – 234).*

LABOISSIERE, V. (1927): Contribution a l'étude des Galerucini de l'Indochine et du Yunnan avec descriptions de nouveaux genres et espèces (Col.: Chrysomelidae). *(Ann. Soc. Ent. France, 96 : 37 – 62).*

LABOISSIERE, V. (1931): Contributions à l'étude de la faune du Mozambique. Voyage de M. P. Lesne (1928-1929). Note. Coleopteres, Galerucini. *(Mem. Estudos Mus. Zool. Univ. Coimbra, Serie 1, 48: 1 – 51).*

LABOISSIERE, V. (1932a): Synopsis des genres de Galerucini de Madagascar. *(Soc. Ent. France. Livre du Centenaire, 575 – 592. Paris).*

LABOISSIERE, V. (1932b): Résultats scientifiques du voyage aux Indes Orientales Néerlandaises de LL. AA. RR. Ie Prince et la Princesse Léopold de Belgique. Coleoptera, Galerucinae. *(Mem. Mus. Royal d'Histoire Naturelle de Belgique, Hors, Series 4 (4): 145 – 184).*

LABOISSIERE, V. (1934a): Schwedisch-chinesische wissenschafliche Expedition nach den nordwestlichen Provinzen Chinas. *(20. Col. 6. Galerucinae. Arkiv for Zoologi, 27A (6): 1 – 9).*

LABOISSIERE, V. (1934b): Coléopterès Galérucines nouveaux ou peu connus de la faune indo- malaise. *(Annales de l'Association des Naturalistes de Levallois-Perret, 21 : 109 – 137).*

LABOISSIERE, V. (1936): Galerucinae africains de la collection du Musée Civique de Genes. *(Ann. de l'Association Nat. de Levallois-Perret, 22 : 139 – 184).*

LEFEVRE, M. Ed. (1876): Synopsis des Eumolpides d' Europe et confins. *(Abeille, 14 : 1 – 100).*

LOPATIN, I (1984b): Leaf Beetles (Chrysomelidae) of Central Asia and Kazakhstan. *((Text book, 415 pp).*

MEDVEDEV, L. (1996): The Chrysomelidae of Arabia. *(Fauna of Saudi Arabia, 15: 211 – 263).*

PIC, M. (1939): Especies nouvelles et description de coleopteres . *(Bull. Soc. Fouad 1er. Ent., 23, p. 148).*

SPEATH, F. (1932 – 1933): Neue Beitrage zur kenntnis der africanischen Cassidinen (Col.: Chrysomelidae). *(Revue de Zoologie et de Botanique Africanes, 22:2–22: 227–241; 345–359).*

SCHMITT, M. (1989): On the phylogenetic position of the Bruchidae within the Chrysomeloidea (Coleoptera). *(Entomography, 6: 531 – 537).*

SELMAN, B. J. (1965): A revision of the Nodini and a key to the genera of Eumolpidae of Africa (Coleoptera: Eumolpidae). *(Bulletin of the British Museum Natural History. Entomology, 16(3): 141 – 174).*

SHUT, S. L. (1983): Key to the genera of galerucine beetles of New Guinea, with a review of *Sastra* and related new taxa (Chrysomelidae). *(Bulletin of the British Museum Natural History, Ent., Series 46(3): 205 – 266).*

UHMANN, E. (1953): Hispinae des Musee Royal du Congo BelgeVI. Teil. 134 Beitrag zur kenntnis der Hispinae (Col.: Chrysomelidae*).(Ann. Mus. Roy. Congo Belge. Tervuren ser. 8, Sciences Zool., 28 : 1 – 48).*

UHMANN, E. (1954): Verwandtschftskreise und skulptur der Decken der Austral-Asiatischen *Dactylispa* – Arten. *(Philippine Jor. Science, 83 (1): 1 – 37).*

UHMANN, E. (1957): Hispinae aus Sudafrica 172, Beitrag zur kenntnis der Hispinae (Col.: Chrysomelidae). *(Ann. Transvaal Mus., 23(1): 87 – 102).*

UHMANN, E. (1960): Hispinae aus Madagascar, 3 Teil. (201 Beitrag zur Kenntnis der Hispinae) (Col.: Chry.). *(Verhandlungen der Naturorschenden Gesellschaft in Basel, 71 (2): 257 – 271).*

WARCHALOWSKI, A. (1993): Chrysomelidae. Fauna Polski.*(Fauna Poloniae, Tom 15. Czesc 3, (Text book, 278 pp).*

WARCHALOWSKI, A. (1994): Chrysomelidae. Fauna Polski. *(Fauna Poloniae, Tom 16. Czesc 4, (Text book, 302 pp).*